

# 11

## SKEPTICAL DOUBTS

*Kathrin Koslicki*

### 1. Grounding Enthusiasm, Grounding Skepticism, and the Central Question

*Grounding enthusiasts* (also known as “groundhogs”, see Fine 2020) tell us that something is to be gained by recognizing that certain factual connections and/or certain nonfactual connections are all grounding connections. Often, phenomena such as those in (1) are cited as putative examples of *factual* grounding connections, while phenomena such as those in (2) are cited as putative examples of *nonfactual* grounding connections:<sup>1</sup>

- (1) a. Moral/Natural: The fact that an act is a telling of a lie grounds the fact that the act is morally wrong.
- b. Truthmaking: The truth of the proposition that snow is white is grounded in the existence of the state of affairs, snow’s being white.
- c. Logical Cases: The fact that the ball is red grounds the fact that the ball is red or round.
- d. Determinate/Determinable: The fact that the ball is crimson grounds the fact that the ball is red.
- e. Genus/Species: The fact that this geometrical figure is a square is grounded in the fact that this geometrical figure is an equilateral rectangle.
- (2) a. Sets/Members: The singleton set containing Socrates is grounded in its sole member, Socrates.
- b. Holes/Hosts: The holes in a piece of Swiss cheese are grounded in the piece of Swiss cheese in which they reside.
- c. Abundant/Sparse Properties: The abundant property, *grueness*, is grounded in some combination of sparse properties.
- d. Boundaries: The boundary around a football field is grounded in the football field it delimits.
- e. Tropes: A rose’s redness trope is grounded in the rose in which it is present.

Although the factual and nonfactual connections cited in (1) and (2) are here expressed using the grounding idiom, this formulation in itself should by no means be regarded as an endorsement of or as straightforward evidence in favor of grounding enthusiasm. These same connections can

also be expressed using other connectives, such as “in virtue of”, “because”, “is explained by”, “is made the case by”, or “depends on”, instead of “is grounded in”. Regardless of the terminology we use to state the connections at issue, the grounding enthusiast’s claim that these (and/or other) examples are in fact best viewed as grounding connections is a substantive claim and one that is contested by those who dispute the theoretical utility of the grounding idiom. (More in what follows on the method of giving examples of alleged grounding connections in support of grounding enthusiasm.)

What exactly are we supposed to learn from the grounding enthusiast’s alleged insight that factual and/or nonfactual connections such as those cited in (1) and (2) are all grounding connections? In what follows, I shall refer to this as “the Central Question”. *Grounding skeptics* (also known as “ground busters”, see Fine 2020), depending on the version of grounding skepticism they endorse, respond to the Central Question as follows: either (i) we learn nothing at all from the grounding enthusiast’s alleged insight; or (ii) what we learn from the grounding enthusiast’s alleged insight can be better stated in terms that do not appeal to the grounding idiom. In either case, so the grounding skeptic reasons, the grounding idiom lacks theoretical utility, and we therefore might as well continue to go about the business of trying to clarify the nature of the factual and/or nonfactual connections at issue without appeal to the grounding idiom.<sup>2</sup>

## **2. Varieties of Grounding Skepticism**

We can distinguish between different varieties of grounding skepticism. Chronologically speaking, the first wave of grounding skepticism, or what I shall call “old-school” skepticism, primarily calls into question the overall coherence or intelligibility of the grounding idiom. Since a notion can presumably only be theoretically useful if it is intelligible and coherent, this form of skepticism, if successful, would undermine the theoretical utility of the grounding idiom by questioning one of its presuppositions. The next wave of grounding skepticism, or what I shall call “second-generation” skepticism, focuses not so much on the overall coherence or intelligibility of the grounding idiom but instead challenges the theoretical utility of the grounding idiom in other ways. In particular, “second-generation” skeptics raise doubts concerning (i) the alleged unifying power of the grounding idiom; (ii) the alleged power of the grounding idiom to capture and elucidate the distinction between the fundamental and the nonfundamental; and (iii) the alleged metaphysical (as opposed to mind-dependent, epistemic or psychological) utility of grounding claims.<sup>3</sup>

### **2.1 “Old-School” Grounding Skepticism**

“Old-school” skepticism finds its expression, for example, in Daly 2012 and Hofweber 2009 (see also Clark and Liggins 2012; Kovacs 2017; Rayo 2013, 2014.) According to Chris Daly, grounding theorists can defend the intelligibility of the grounding idiom by opting for one of the following two strategies: they can either take the grounding idiom to be defined in terms whose intelligibility can be taken for granted; or they can take the grounding idiom to be primitive but convey its meaning in other ways. Primitivists like Paul Audi, Gideon Rosen, and Jonathan Schaffer (Audi 2012a, 2012b; Rosen 2010; Schaffer 2009) opt for the latter strategy and try to convey the meaning of the grounding idiom by (a) specifying its logical properties, (b) citing its connections with other terms, and (c) giving examples. Daly argues that the cumulative effect of (a) through (c) nevertheless misses its target. For, first, the logical properties ascribed to the grounding idiom (e.g., factivity, referential transparency, well-foundedness, irreflexivity, asymmetry, transitivity, nonmonotonicity, necessitation, etc.) are not sufficiently fine-grained to identify

the grounding idiom uniquely. Secondly, the other terms with which the grounding idiom might be connected either cannot be taken to be antecedently any more well understood than the grounding idiom itself (e.g., “fundamentality”; “degrees of reality”; etc.); or, if these terms can plausibly be taken to be antecedently more well understood than the grounding idiom (e.g., “reduction”; “explanation”; etc.), then their connection to the grounding idiom is in turn debatable. Thirdly, any putative examples of the grounding idiom, insofar as they are construed as applications of an idiom whose intelligibility is in question, will not be any more comprehensible to the “old-school” skeptic than the idiom they are meant to illustrate. If, however, the examples in question can be construed in other terms whose intelligibility is not in doubt (e.g., supervenience, identity), then they of course no longer serve to illustrate the grounding idiom. Thus, either way, the “old-school” skeptic will fail to be swayed by the primitivist’s attempt to defend the intelligibility of his idiom by citing purported examples of grounding connections. In sum, while Daly’s skeptical arguments do not (and are not meant to) establish that the case for adding the grounding idiom to our language is completely hopeless, he does take himself to have shown that the primitivist’s defense of the intelligibility of the grounding idiom requires more than the considerations cited in (a) through (c). We will see that primitivists have, in their more recent work, heeded Daly’s advice and adduced additional machinery in response to the skeptic’s objections.

Thomas Hofweber is similarly concerned about the intelligibility of the grounding idiom, especially if the grounding idiom is to be accepted as primitive. In Hofweber’s view, the grounding idiom, as it is employed for example in Fine 2001 and Schaffer 2009, is illustrative of a style of metaphysics he calls “esoteric”, as opposed to “egalitarian”, metaphysics. Egalitarian metaphysics, according to Hofweber, conceives of the discipline of metaphysics as aiming to answer questions (e.g., the question of whether change is possible) that are formulated using ordinary terms (e.g., “change”), accessible to nonmetaphysicians as well. Esoteric metaphysics, in contrast, conceives of the discipline of metaphysics as aiming to answer questions (e.g., the question of what grounds what) that are formulated using “distinctively metaphysical terms” (e.g., “ground”), i.e., terms that are either not employed outside of metaphysics at all or at least not in the sense in which they are intended to be used by the esoteric metaphysician (Hofweber 2009: 267). If a “distinctively metaphysical term” is taken as primitive, then there must be some way to convey its meaning to “outsiders”; otherwise, so Hofweber reasons, metaphysics becomes an objectionably exclusive endeavor into which only those who already profess to be converts can gain entry.

Like Daly, Hofweber is also skeptical that primitivists can avail themselves of the method of giving examples to allow “outsiders” to catch on to their “distinctively metaphysical” use of the grounding idiom. When they do so, Hofweber argues, primitivists tend to be guilty of a “bait-and-switch” tactic (Hofweber 2009: 268): the examples they give, insofar as they are intelligible to “outsiders” at all, make use of perfectly ordinary notions of priority instead of illustrating the “distinctively metaphysical” notion of priority that is supposed to be associated with the primitivist’s use of the grounding idiom. To illustrate, in Hofweber’s view, the relation between a true disjunction and its true disjuncts cited earlier in (1.c) is perfectly intelligible to “outsiders”, but it does not illustrate a “distinctively metaphysical” notion of priority; rather, it should be understood in terms of logical entailment (viz., the truth of the disjunct logically entails the truth of the disjunction, while the converse is not the case). Thus, in each case, in which a purported example is supposed to illustrate the “distinctively metaphysical” priority relation associated with the grounding idiom, Hofweber’s strategy is to offer some alternative construal in terms of a different notion of priority he takes to be perfectly accessible to the “outsider” (e.g., causal, conceptual, logical, or counterfactual priority). If no such reconstrual is possible, then Hofweber

would presumably conclude that no sense at all can be made of the purported application of the grounding idiom. At the end of the day, then, primitivists, according to Hofweber, cannot succeed in bringing “outsiders” into the fold by citing alleged instances of their “distinctively metaphysical” grounding idiom, and those who are concerned about the unintelligibility of a “distinctively metaphysical” notion of priority will continue to harbor their “old-school” skeptical doubts, even after having encountered a list of alleged instances of the grounding idiom.

## 2.2 “Second-Generation” Grounding Skepticism (I): Unity

As described in the previous section, “old-school” skeptics like Chris Daly and Thomas Hofweber challenge the theoretical utility of the grounding idiom by denying one of its presuppositions, viz., that the grounding idiom is at least coherent and intelligible. “Second-generation” skeptics, in contrast, include theorists who object to the grounding idiom for other reasons, even while being willing to grant that the types of connections at play in (1) and (2) cannot be understood in terms “old-school” skeptics might find acceptable (e.g., identity, modality, parthood, supervenience, realization, causation, counterfactual dependence, logical entailment, and the like). In this section, we will consider one such source of skeptical doubts that has recently gained traction among “second-generation” skeptics, viz., skeptical doubts concerning the alleged power of the grounding idiom to *unify* what at first sight appears to be a heterogeneous collection of factual and/or nonfactual connections, such as those cited in (1) and (2).

Grounding enthusiasts like Paul Audi, Gideon Rosen, and Jonathan Schaffer have responded to the Central Question, in part, by citing the alleged unifying power as one of the main theoretical virtues they want to claim for their primitive grounding idiom (Audi 2012b: 689; Rosen 2010: 114; Schaffer 2009: 376–377). But the hypothesis that all alleged grounding connections present us with a unified phenomenon (or what I shall call the “unity hypothesis”) is open to several different interpretations of varying strengths, and grounding enthusiasts therefore would do well to clarify and provide arguments for the particular version of this hypothesis they wish to put forward (Koslicki 2015a: 314ff). In its strongest form, the unity hypothesis holds that all alleged grounding connections exhibit a single *species* of relation or operation. A second, somewhat weaker interpretation posits that distinct specific grounding connections at least form a single *generic* kind. A third, yet weaker, reading requires only that distinct connections which are collected together under the single rubric of grounding at least *objectively resemble* each other in certain theoretically significant ways. M. Cameron 2014 expands the range of options further by suggesting that Aristotle’s notion of *focal meaning* (“*pros hen*” or “core-dependent homonymy”) might provide grounding enthusiasts with an additional intermediate option between the second “single genus” reading and the third “objective resemblance” reading of the unity hypothesis. According to this reading, distinct uses of the grounding idiom are neither straightforwardly equivocal nor straightforwardly univocal; rather, they can all be traced back to a single, yet-to-be-specified central use of the grounding idiom, just as everything that has being, in Aristotle’s view, in some way depends on the primary substances. (See also Rettler 2017 for a defense of the view that, while grounding itself is monistic, the term, “grounding” refers to different relations in different contexts.)

In response to invitations from “second generation” skeptics like Koslicki 2015a and J. Wilson 2014 to disambiguate and defend their invocation of the unity hypothesis, grounding enthusiasts have appealed to at least the following three types of considerations: (i) the apparent heterogeneity of grounding connections should be traced not to differences among the types of connections at issue but rather to differences among the types of entities that figure in these alleged grounding connections (Audi 2012b; Raven 2017); (ii) the apparent preservation of formal

properties across different uses of the grounding idiom indicates that a single generic type of grounding connection is operative in these various contexts (Berker 2017); and (iii) the fact that all alleged grounding connections can be described using a single formalism, viz., that utilized by structural equations models of causation, supports the hypothesis that all grounding connections belong to a single species (A. Wilson 2017) or at least a single genus (Schaffer 2016a, 2016b). (See also Kovacs 2017, who—although himself a grounding skeptic—borrows from the literature on explanation in the philosophy of science and considers various potential unification strategies while ultimately remaining doubtful about their effectiveness.)

### 2.2.1 *The Source of Heterogeneity*

“Second-generation” skeptics have noted that there are certain obvious apparent differences between cases of alleged grounding connections, such as those cited in (1) and (2) (Koslicki 2015a: 317ff; J. Wilson 2014: 568ff). For example, in the determinate/determinable case illustrated in (1.d), if the ball’s being red (all over) is grounded in the ball’s being crimson (all over), then that same determinable fact cannot also at the same time be grounded in the ball’s being maroon (all over), since a ball cannot simultaneously be both crimson (all over) and maroon (all over). In contrast, in the logical case illustrated in (1.c), for example, over-determination of the grounded fact by its alleged ground is permissible: a disjunctive fact, such as the ball’s being red or round, may obtain because one of its constituent facts obtains (e.g., the ball’s being red), or because its other constituent fact obtains (i.e., the ball’s being round), or because both of its constituent facts obtain (viz., the ball’s being red and the ball’s being round). Some such differentiating feature or combination thereof can be found by means of which each of the cases illustrated in (1) and (2) can be distinguished from all the other cases. At best, then, given the apparent differences between alleged grounding connections, “second-generation” skeptics conclude that the unity hypothesis still stands in further need of justification. At worst, however, if grounding enthusiasts are unable to provide plausible arguments in favor of their preferred reading of the unity hypothesis, then some form of pluralism concerning the types of connections at play in such cases as (1) and (2) seems warranted.

Grounding enthusiasts like Paul Audi and Michael J. Raven have countered that the apparent heterogeneity visible in the phenomena collected together under the rubric of grounding should be blamed on the heterogeneity of the entities that figure in these connections and not on the types of connections themselves (Audi 2012b: 689; Raven 2016: 633–634). By way of analogy, Raven observes that, in the case of logical entailment, for example, we are not inclined to infer from the heterogeneity of cases to which logical entailment can be applied that a multiplicity of logical entailment relations must therefore be stipulated. To illustrate, when we existentially generalize from an instance, the premise of our inference is more specific than the conclusion; in contrast, when we infer a particular instance from a universal generalization, the premise of our inference is less specific than its conclusion. Nevertheless, despite this difference in specificity, we hold that the logical entailment relation which applies in both cases is the same.

At this point in the dialectic, the danger, from the point of view of the “second-generation” skeptic, is that, when we are asked to abstract away from the details of specific applications of the grounding idiom to particular cases, we thereby also in effect lose sight of what is metaphysically most interesting and informative about the nature of the connections at issue. To illustrate, as Koslicki 2015a and J. Wilson 2014 have pointed out, when we are presented for example with a bare factual grounding claim of the form, [p] grounds [q], we are given very little guidance as to how to answer philosophically significant more specific questions concerning the relationship between [p] and [q] or their constituents. The following list of such questions which may or may

not be left open, depending on the particular conception of grounding at issue, is not by any means intended to be exhaustive (see J. Wilson 2014 and Koslicki 2015a for additional examples, the latter of which also includes questions regarding nonfactual connections that are seemingly left unanswered by their paraphrases in terms of the grounding idiom):

- (3) a. Is [p] identical with [q]?
- b. Are [p] or [q] real or unreal? And if so, in what sense?
- c. Is [q] reducible to [p]? And, if so, in what sense?
- d. Is the connection between p and q normatively, nomologically, metaphysically, or logically necessary?
- e. Can a special kind of causal efficacy be ascribed to [q] or its constituents?
- f. Do [p] or some of its constituents functionally realize [q] or some of its constituents?
- g. Do [p] and [q], or some of their constituents, stand in the determinate/determinable relation?
- h. Do [p] and [q], or some of their constituents, stand in the part/whole relation?
- i. Is there a set-theoretic relationship between the constituents of [p] and [q]?
- j. Do the constituents of [p] figure in a real definition of the constituents of [q]?
- ...

Unless or until grounding enthusiasts can deliver answers to these and other specific questions concerning the nature of the connections at issue, “second-generation” skeptics are likely to feel that very little philosophical progress has been made toward illuminating the nature of the connections at issue by subsuming them under the rubric of grounding. We already knew to begin with that some interesting explanatory or dependence relation or other holds in cases to which the grounding idiom is applied; but relabeling these connections as grounding connections does not help us understand any more deeply than we already did at the outset what kind of explanatory or dependence relation is operative in each case. In fact, from the perspective of those who believe that phenomena such as those cited in (1) and (2) illustrate a plurality of distinct dependence relations, subsuming this multiplicity under a single label, if anything, represents a dialectical step backward, since it suggests the presence of a unitary connection where in reality there is none.

### *2.2.2 The Preservation of Formal Properties*

Berker 2017 argues in favor of the generic unity of grounding by directing our attention to the fact that certain formal properties that are commonly ascribed to the grounding idiom (e.g., asymmetry and transitivity) appear to be preserved across different (e.g., normative and metaphysical) contexts. Berker develops several specific cases that are intended to bring out that the transitivity and asymmetry principles for alleged “mixed” normative/metaphysical cases of grounding are just as plausible as the corresponding transitivity and asymmetry principles for “pure” cases that purportedly concern only normative or metaphysical grounding connections. The best explanation for this apparent preservation of formal properties, in Berker’s view, is that a single generic grounding connection is at play in these different contexts.

Although Berker’s argument is most directly addressed to a view he calls “moderate grounding pluralism”, a modified version of essentially the same argument is also intended to target a type of view he labels “extreme grounding pluralism”. “Moderate grounding pluralists”, e.g., Fine 2012, are not grounding skeptics; rather, these theorists firmly believe in the theoretical utility of the grounding idiom but accept multiple distinct types of grounding connections,

e.g., metaphysical grounding, normative grounding, and natural grounding (see Richardson 2020). These distinct types of grounding connections, according to the moderate pluralist, are not reducible to or definable in terms of a single basic type of grounding connection. (See also Mikkola 2015 for an argument to the effect that, if the grounding idiom is to apply to social phenomena, then we seem to be pushed toward accepting at least a form of moderate grounding pluralism; we will return to the issue of how or whether the grounding idiom is applicable to the domain of social ontology in Section 2.3.2.) By contrast, “*extreme grounding pluralists*” are grounding skeptics, viz., theorists belonging to the “second generation” of grounding skepticism (e.g., Koslicki 2015a, 2016; J. Wilson 2014, 2016): extreme grounding pluralists do call into question the theoretical utility of the grounding idiom and hold instead that a plurality of irreducible dependence relations is needed to characterize phenomena such as those cited in (1) and (2).

To illustrate, consider a normative context, such as that cited in (1.a), in which a natural fact (e.g., the fact that an act is a telling of a lie) allegedly normatively grounds a moral fact (e.g., the fact that the act in question is morally wrong). Now consider a logical context, such as that cited in (1.c), in which a disjunctive fact (e.g., the fact that the act under consideration is either morally wrong or not morally wrong) is allegedly grounded in one of its constituent facts (viz., the fact that the act in question is morally wrong). Following Fine 2012, such a case is to be viewed as an instance of metaphysical grounding, mediated here by the essence of disjunction. According to Berker’s mixed transitivity principle, we are now permitted to conclude that the natural fact in question (viz., the fact that the act under consideration is a telling of a lie) grounds the disjunctive fact (viz., the fact that the act in question is either morally wrong or not morally wrong) by way of grounding one of its constituent facts (viz., the fact that the act in question is morally wrong). The best explanation for the intuitive plausibility of this inference, and hence for the intuitive plausibility of the mixed transitivity principle which licenses this inference, in Berker’s view, is that the type of grounding connection that is operative in both contexts is a single generic notion of grounding. A similar argument, according to Berker, can be used to establish a corresponding result using a mixed asymmetry principle.

Litland 2018 has replied to Berker’s arguments on behalf of the moderate grounding pluralist. And although a response from the point of view of the extreme grounding pluralist has yet to be developed, these theorists may well want to mirror and adapt for their own purposes some of the moves Litland makes in defense of moderate grounding pluralism. In the case of intuitively plausible inferences that appear to be licensed by “mixed” transitivity principles, for example, pluralists of any stripe are likely to invoke separate explanatory connections for distinct types of contexts (e.g., one type of explanatory connection that accounts for the relation between natural and moral facts and a different type of explanatory connection that accounts for the relation between disjunctive facts and their constituents). In addition, extreme grounding pluralists will want to supplement their account with some sort of justification for why chaining together distinct explanatory connections is, under certain circumstances, permissible and yields a further “non-rigged-up” explanation (Berker 2017: 23–24).

### 2.2.3 *Positing a Single Formalism*

In defense of the hypothesis that grounding presents us with a unified phenomenon, some grounding enthusiasts have proposed to take seriously the idea that grounding either is or is at least analogous to a kind of causation, viz., *metaphysical* causation (see Wang 2020). (In what follows, I continue to use the terms “grounding” and “causation”, respectively, for what these theorists have in mind when they speak of “metaphysical causation”, on the one hand,

and “nonmetaphysical” or “nomological causation”, on the other hand.) Jonathan Schaffer, for example, defends the weaker view, viz., that grounding is merely analogous to causation (Schaffer 2016a, 2016b), while Alastair Wilson adheres to the stronger view, viz., that grounding literally is a species of the genus, causation (A. Wilson 2017). More specifically, Schaffer and A. Wilson argue that both grounding and causation are best approached through the lens of a single formalism, viz., that utilized by SEM (or “structural equation model”) frameworks of causation. Defenders of this line of reasoning take the fact that a single formalism can be used to characterize both cases to indicate that grounding is at least as unified as causation. (For further endorsements of the idea that grounding and causation are in some fashion closely related, see also Bennett 2011: 93–94, 2017; Fine 2012: 40; Schaffer 2012: 122; Sider 2011: 145.)

The legitimacy of the SEM-style argument in favor of the unity hypothesis can be and has been challenged on multiple grounds. For one thing, the assumption that the SEM framework in fact provides a workable approach to causation is highly controversial (J. Wilson 2016). Secondly, even if the plausibility of SEM approaches to causation is granted for the sake of the argument, it is debatable whether the SEM framework transfers as smoothly from the case of causation to the case of grounding as Schaffer and A. Wilson would have us believe (Koslicki 2016; J. Wilson 2016). Thirdly, the purported similarities between causation and grounding can also be disputed independently of the particulars associated with the SEM framework (Bernstein 2016; Shaheen 2017). Given these challenges, then, it is fair to say that, SEM-style arguments notwithstanding, skeptical doubts concerning the unity hypothesis, at this point, are still alive and well.

### **2.3 “Second-Generation” Grounding Skepticism (II): Fundamentality**

In Section 2.2, we considered reasons for and against thinking that the theoretical utility of the grounding idiom derives, at least in part, from its alleged power to unify what might otherwise strike us as a heterogeneous collection of phenomena. In addition to this first type of response, an extremely widespread second response to the Central Question defends the theoretical utility of the grounding idiom by appeal to its alleged power to capture and/or elucidate the distinction between the fundamental and the nonfundamental (see Bliss 2020). Thus, following this second style of response to the Central Question, what we learn from being told that a fact, [p], is grounded in a fact, [q], is at least in part that [p] is less fundamental than or posterior to [q]; that [q] is more fundamental than or prior to [p]; that [p]’s obtaining is not a brute, unexplained phenomenon, but rather that [p]’s obtaining is to be explained by appeal to the obtaining of some other fact, namely [q]. (An analogous strategy is supposed to apply in nonfactual, non-propositional cases as well; but see Koslicki 2015a for a discussion of some of the difficulties in finding a ground-theoretic way of expressing relative fundamentality relationships among nonfactual, nonpropositional entities.)

Although some version of the second style of response to the Central Question seems to be almost universally accepted by grounding enthusiasts, different theorists choose different vehicles to give voice to the general sentiment underlying this second response. The following partial list illustrates (in no particular order) some of the variations on the general theme just cited that are represented in the literature on grounding: among other things, the grounding idiom is said to be needed, for example, in order to express the layered hierarchical structure of reality (deRosset 2013); to fix the direction of relative fundamentality or priority (R. Cameron 2016; Raven 2017); to analyze claims concerning ontological dependence and/or the substance/nonsubstance distinction (Correia 2005, 2008; Rydén 2018; Schaffer 2009; Schnieder 2006, 2020); to formulate a hyperintensional theory of intrinsicness (Bader 2013; Rosen 2010); to articulate a sensible form of nominalism about properties (Melia 2005); to encapsulate the

idea that some truths are metaphysically “light-weight” (deRosset 2017: ms.); or to make room for a suitable notion of ineliminability (Raven 2016, 2017). Moreover, without their idiom, so grounding enthusiasts have argued, it is impossible to understand certain philosophical positions or substantive disputes in philosophy properly, e.g.: physicalism (Schaffer 2003, 2009); the realism/antirealism debate (Fine 2001); the relation between normative ethics, meta-ethics, and metaphysics (Berker 2017); disagreements in feminist metaphysics or social ontology more generally (Mikkola 2015; Schaffer 2017; Sider 2017); the mind/body problem or the debate between substantialists and relationalists about space (Dasgupta 2014, 2017); as well as the idea of sparseness or “nothing-over-and-aboveness” (Bryant 2020; R. Cameron 2008; Leary 2020; Passinsky 2020; Ney 2020; Schaffer 2007, 2009, 2010; Solomyak 2020).

In addition, in the minds of some grounding enthusiasts (e.g., R. Cameron 2016; Schaffer 2016b), a theory that incorporates the grounding idiom has greater expressive powers than a comparable theory that helps itself only to a primitive notion of absolute fundamentality but lacks the grounding idiom (J. Wilson 2014, 2016). According to the former type of theory, so the reasoning goes, the absolutely fundamental can simply be defined in terms of the relatively fundamental, viz., as that which, while being itself ungrounded, serves as a ground for other derivative phenomena. But the reverse, so these theorists argue, is not the case, since there appears to be no similar straightforward mechanism by means of which the relatively fundamental can be defined in terms of the absolutely fundamental without implicitly appealing to (some terminological variant of) the grounding idiom.

### 2.3.1 *Formal Properties of the Grounding Idiom*

Grounding connections are often assumed to be factive, referentially transparent, well founded, irreflexive, asymmetric, transitive, nonmonotonic, and metaphysically necessary. Overall, given these alleged formal properties, grounding enthusiasts have taken their idiom to be suitable for the formulation of a hierarchically structured picture of reality, eventually bottoming out in an absolutely fundamental layer that in turn fixes and metaphysically explains everything else. But various arguments have been mounted in the literature that call into question some of these alleged formal properties commonly associated with the grounding idiom. (In some cases, these arguments are formulated in terms of ontological dependence rather than grounding; however, insofar as grounding enthusiasts are committed to the idea that statements concerning ontological dependence can be understood as grounding claims, the objections in question will also affect the grounding idiom.) Barnes 2018, for example, proposes that dependence relations should not be assumed to be asymmetric and that this provides a reason for distinguishing dependence from ground, assuming that ground must be asymmetric. Thompson 2016a argues that grounding should be taken to be nonsymmetric rather than asymmetric (see also Thompson 2020). Jenkins 2011 raises objections against the irreflexivity of dependence. Bliss 2014, R. Cameron 2008, Lubrano 2018, Rosen 2010, and others critically discuss the assumption that grounding is well founded (see also Dixon 2020). Schaffer 2012 regards explanatory claims as contrastive, which calls into question the transitivity of grounding. Rodriguez-Pereyra 2015 puts forward reasons for thinking that grounding is neither irreflexive nor asymmetric nor transitive. Skiles 2015 has questioned necessitarianism and holds instead that grounding connections may be contingent (see also Skiles 2020). On the whole, if these sorts of arguments succeed and we have reason to doubt that the grounding idiom really has the formal properties that are commonly ascribed to it, then we may in turn wonder whether this notion can in fact be used to accomplish the theoretical tasks for which it is intended. In particular, unless the grounding idiom has the requisite formal properties, it cannot perform the purported theoretical job of

imposing a hierarchical order connecting the (absolutely and/or relatively) fundamental to the (absolutely and/or relatively) nonfundamental.

### 2.3.2 *Potentially Problematic Applications of the Grounding Idiom*

According to the second style of response to the Central Question, the grounding idiom is said to furnish us with the preferred concept by means of which to express the connection between the (absolutely and/or relatively) fundamental and the (absolutely and/or relatively) nonfundamental. Recently, however, some critics have questioned whether the grounding idiom can really be helpfully applied to nonfundamental phenomena within the social domain (e.g., Barnes 2014, 2017; Mikkola 2015, 2017). Barnes 2014, for example, writes that ground-theoretic approaches to (meta-)metaphysics tend to privilege the absolutely fundamental and characterize existence questions as trivial, thereby apparently ruling out the prospect for feminist metaphysics as a sub-discipline of metaphysics. Such approaches, according to Barnes, make it difficult to appreciate the substantivity of certain disputes among feminist philosophers, e.g., concerning the nature or existence of gender, since these disputes concern nonfundamental rather than fundamental phenomena; moreover, existence questions, in these contexts, are often not regarded as trivial.

In response, grounding enthusiasts (e.g., Raven 2017; Schaffer 2017; Sider 2017) have stressed that ground-theoretic approaches have the resources to capture the importance of derivative phenomena. Raven 2017, for example, replies to Barnes's concerns by arguing that the mere acceptance of ground does not require "fetishizing the fundamental"; rather, so Raven remarks, metaphysics is concerned no less with the nonfundamental than with the fundamental: "Much of our interest in the fundamental is to use it to account for the nonfundamental" (Raven 2017: 644). In light of criticisms mounted by Mikkola 2015, which challenge the local applicability of ground to value-laden inquiry, Raven notes that ground and value-laden inquiry can coherently combine (Raven 2017: 645–649). (See also Passinsky 2020.)

### 2.3.3 *Alternative Approaches*

Alternatives to ground-theoretic approaches have been proposed in the literature. For example, Lipman 2016 argues that, when it comes to a characterization of antirealism, simple error-theoretic approaches are preferable to ground-theoretic approaches. In general, so Lipman writes, metaphysics must be about what does and does not obtain and should concern itself with questions of fundamentality only when commonsense or scientific verdicts are lacking or deliver conflicting results (Lipman 2016: 604).

In my own work, I have argued that, in order to arrive at a sufficiently fine-grained approach to relative fundamentality for nonfactual, nonpropositional phenomena, we must recognize multiple distinct dimensions along which an entity or type of entity may be classified as more or less deserving of substance status (Koslicki 2012, 2013a, 2013b, 2015a, 2015b, 2018). Currently available idioms of grounding do not reflect, for example, distinctions among the following dimensions of relative fundamentality and nonfundamentality: (i) whether an entity is essentially *abstracted* from something more complex; (ii) whether an entity is essentially *constructed* out of other entities; (iii) whether an entity is *natural* or *artificial* (e.g., essentially the result of a creative act involving an intentional agent); or (iv) whether an entity is more or less *unified*. However, just as one and the same thing can be both good in some respects (e.g., dancing) and bad in others (e.g., playing basketball), so one and the same entity, according to the multidimensional conception, can also be both more fundamental than another in certain respects (e.g., its degree of unity) and less fundamental than another in other respects (e.g., its naturalness or artificiality).

It is only once we make room for multiple dimensions of fundamentality and nonfundamentality, so I argue, that we can do justice to the data that presents itself to the ontologist and meta-ontologist.

A different kind of pluralism has been proposed by J. Wilson 2014, 2016. According to J. Wilson, there is no need to posit a grounding idiom (or, in her terms, “big ‘G’ Grounding”), since the work for which this notion is intended is in fact already performed by a multiplicity of what she calls “small ‘g’ grounding relations” (e.g., parthood, composition, realization, constitution, set membership, and the like). In order to account for the directionality of relative fundamentality relations, J. Wilson appeals in addition to a primitive notion of absolute fundamentality and to further “suppositions/facts about the natures of the non-fundamenta and how (via one or other small-g relation) the non-fundamenta stand to one another” (J. Wilson 2016: 195).

J. Wilson and I thus agree that grounding is too coarse-grained to perform the metaphysical work for which it is intended and that a pluralism of some kind is called for to carry out these responsibilities properly. But we arrive at these conclusions in different ways and differ with respect to certain crucial commitments we take on board along the way. For one thing, I do not follow J. Wilson in regarding the relations she calls “small ‘g’ grounding relations” themselves as ontological dependence relations. Rather, my own position is that these relations *induce* different varieties of ontological dependence in different circumstances and in different respects. Thus, in certain cases and in certain respects, the parts composing a whole may depend on the whole in question; and in certain cases and in certain respects, a whole may also depend on its parts. But we lose the ability to make these distinctions if we simply view parthood itself as a relation of ontological dependence. Secondly and relatedly, I depart from the earlier position of J. Wilson 2014 that absolute fundamentality together with what she calls “small ‘g’ grounding relations” gives us the apparatus sufficient to capture the *directionality* of relative fundamentality. Even if we assume an absolutely fundamental level as fixed, such relations as parthood can still induce ontological dependence relations going in both directions, both towards the absolutely fundamental and away from the absolutely fundamental. In order to capture the directionality of relative fundamentality, it is thus necessary to make room for the different varieties of ontological dependence, in addition to what J. Wilson calls “small ‘g’ grounding relations”. Thirdly, I am not convinced that it is legitimate, from the perspective of a metaphysician, to assume an absolutely fundamental level as fixed; rather, like Rosen 2010 and others, I advocate maintaining a neutral stance concerning the question of whether relations of relative fundamentality turn out to be well founded. (See Schaffer 2016b and J. Wilson 2016 for a recent exchange in which J. Wilson addresses some of these concerns.)

#### **2.4 “Second-Generation” Grounding Skepticism (III): Deflating the Grounding Idiom**

Up to this point, we have considered two types of responses to the Central Question: the first stresses the alleged power of the grounding idiom to unify an apparently heterogeneous collection of phenomena; the second defends the theoretical utility of the grounding idiom by citing its alleged power to capture and elucidate the distinction between the fundamental and the nonfundamental. In addition to these two types of responses, I want to end by mentioning at least briefly a third possible response to the Central Question. This third reply proceeds by recommending a properly deflated conception of the grounding idiom. In response to the Central Question, deflationists may allow that something is to be gained by classifying certain connections as grounding connections; however, the lessons we learn, so deflationists will stress, are more modest and less metaphysical than the initial (and continued) hype connected with the

grounding idiom may have led us to believe (Dasgupta 2017; Maurin 2019; Miller and Norton 2017; Thompson 2016b).

Along these lines, Dasgupta 2017, for example, argues that the grounding idiom, as it is utilized by certain grounding enthusiasts and grounding skeptics alike, has been improperly inflated, with the result that the theoretical usefulness of this notion has thereby been obscured. Rhetoric aside, the grounding idiom, in Dasgupta's view, should be understood as merely playing the role of "limning many issues of intellectual interest" (Dasgupta 2017: 76–77). Once our expectations of what the grounding idiom can deliver have been appropriately adjusted, Dasgupta concludes that the concerns of grounding skeptics can be put to rest and grounding enthusiasts can still accomplish their goals with a deflated conception of ground. Despite his assurances to the contrary, however, grounding skeptics may well feel vindicated by what remains of the grounding idiom after its ambitions have been toned down in the way Dasgupta indicates.

A number of critics (e.g., Maurin 2019; Miller and Norton 2017; Thompson 2016b) also play into the hands of the grounding skeptic by objecting that the grounding idiom has been confused with a metaphysical notion, when it in fact represents a psychological, mind-dependent, and/or epistemically imbued explanatory mechanism. Thompson 2016b, for example, presses grounding enthusiasts to spell out in more detail exactly how they see their grounding idiom as being connected to metaphysical explanation and finds that these theorists are then pushed toward a pragmatic and agent-centered conception of explanation, thus threatening the purported mind-independence of grounding connections. Maurin 2019 similarly arrives at the skeptical conclusion that more work is required on the part of the grounding enthusiast in order to substantiate the purported connection between grounding and metaphysical explanation. Miller and Norton 2017 propose to make sense of our grounding-related judgments by way of a psychological explanation and without positing a grounding idiom; instead, they appeal to cognitive mechanisms that have evolved to detect correlations and causal connections, together with the modal apparatus of supervenience, necessitation, and entailment.

### **3. Conclusion**

In this chapter, we reviewed several varieties of grounding skepticism as well as responses that have been proposed by grounding enthusiasts to considerations raised by grounding skeptics. Grounding skeptics, as we conceived of them here, are theorists who belong to one of the following two schools of thought. "Old-school" grounding skeptics doubt the theoretical utility of the grounding idiom by denying one of its presuppositions, viz., that this notion is at least intelligible or coherent. "Second-generation" grounding skeptics call into question the theoretical utility of the grounding idiom for other reasons; their skeptical doubts tend to focus on one of the following three purported theoretical virtues grounding enthusiasts ascribe to their idiom: (i) its alleged power to unify an apparently heterogeneous collection of phenomena; (ii) its alleged power to capture and/or elucidate the distinction between the fundamental and the non-fundamental; or (iii) the alleged metaphysical (as opposed to mind-dependent, epistemic, or psychological) utility of grounding claims. As we have noted, grounding enthusiasts have already formulated responses to many of the objections described in this chapter. At this point, however, it is fair to say that the state of the literature is still evolving, and no conclusive judgment can therefore be reached as of yet as to whether grounding enthusiasts or grounding skeptics have gained the upper hand in these debates. In the meantime, though, grounding skeptics continue to maintain that the classification of factual and/or nonfactual connections, such as those cited in (1) and (2), under the rubric of grounding does not really help us illuminate the nature of the

connections at issue; instead, from the view of the grounding skeptic, we are better off studying these various connections separately and in their own right.

## Related Topics

- Bliss, Ricki (2020) “Fundamentality,” Chapter 23 this volume.  
Bryant, Amanda (2020) “Physicalism,” Chapter 35 this volume.  
Dixon, Scott (2020), “Infinite Descent,” Chapter 16 this volume.  
Fine, Kit (2020) “The Essential Glossary of Ground,” Chapter 38 this volume.  
Leary, Stephanie (2020) “Normativity,” Chapter 34 this volume.  
Ney, Alyssa (2020) “Mind,” Chapter 33 this volume.  
Passinsky, Asya (2020) “Social Entities,” Chapter 37 this volume.  
Richardson, Kevin (2020) “Varieties,” Chapter 13 this volume.  
Schnieder, Benjamin (2020) “Dependence,” Chapter 7 this volume.  
Skiles, Alexander (2020) “Necessity,” Chapter 10 this volume.  
Solomyak, Olla (2020) “Realism,” Chapter 26 this volume.  
Thompson, Naomi (2020) “Strict Partial Order,” Chapter 17 this volume.  
Wang, Jennifer (2020) “Cause,” Chapter 20 this volume.

## Notes

- 1 I use the terms “factual” and “nonfactual” here to draw a distinction between the types of entities that can allegedly figure in grounding connections (i.e., whether these entities are facts or propositions or whether they are, rather, nonfactual or nonpropositional entities, e.g., objects, properties, relations, and the like). The contrast in question is therefore not to be confused with the distinction between “factive” and “nonfactive” expressions, e.g., as it pertains to the question of whether grounding claims should be regarded as factive or nonfactive.
- 2 What is important, here, is of course the nature of the *connection* at issue, not the expression(s) we use to single out these connections. Thus, if grounding enthusiasts, for example, stopped using the term, “grounding” and related expressions (e.g., “ground”, “ground-theoretic”, etc.) but continued to view the connections at issue as grounding-connections (under a different label), then grounding enthusiasts and grounding skeptics would continue to disagree with one another but use a different vocabulary to formulate their dispute.
- 3 We should note here that, since different grounding enthusiasts accept different claims, not every grounding enthusiast will recognize their own position in connection with every objection I discuss in this chapter. Thus, the skeptical doubts raised in what follows are merely meant to survey the kinds of objections that have been mounted against some version or other of grounding enthusiasm defended in the literature. Given space constraints, I unfortunately cannot always differentiate between the different versions of grounding enthusiasm that are or are not affected by a particular criticism that is being considered. Moreover, since this chapter is intended to give a survey of skeptical doubts, I am often merely reporting what has been said in the literature rather than expressing my own agreement with a particular point. In the case of some of the objections I discuss in what follows, grounding enthusiasts can no doubt formulate plausible responses (or have already done so). Readers are referred to the references I give if they wish to investigate how these debates have played out in the literature in more detail.

## Bibliography

- Aizawa, Kenneth, and Gillett, Carl (eds.) (2016) *Scientific Composition and Metaphysical Ground*, London: Palgrave Macmillan.  
Audi, Paul (2012a) “A Clarification and Defense of the Notion of Grounding,” in Fabrice Correia and Benjamin Schnieder (eds.) *Metaphysical Grounding: Understanding the Structure of Reality*, Cambridge: Cambridge University Press 101–121.

- Audi, Paul (2012b) "Grounding: Toward a Theory of the *In-Virtue-Of* Relation," *Journal of Philosophy* 109 (12) 685–711.
- Bader, Ralf M. (2013) "Towards a Hyperintensional Theory of Intrinsicity," *Journal of Philosophy* 110 (10) 525–563.
- Barnes, Elizabeth (2014) "Going Beyond the Fundamental: Feminism in Contemporary Metaphysics," *Proceedings of the Aristotelian Society* 114 (3) 335–351.
- Barnes, Elizabeth (2017) "Realism and Social Structure," *Philosophical Studies* 174 (10) 2417–2433.
- Barnes, Elizabeth (2018) "Symmetric Dependence," in Ricki Bliss and Graham Priest (eds.) *Reality and Its Structure: Essays in Fundamentality*, Oxford: Oxford University Press 50–69.
- Beebe, Helen, and Dodd, Julian (eds.) (2005) *Truthmakers: The Contemporary Debate*, New York: Oxford University Press.
- Bennett, Karen (2011) "Construction Area (No Hard Hat Required)," *Philosophical Studies* 154 79–104.
- Bennett, Karen (2017) *Making Things Up*, Oxford: Oxford University Press.
- Berker, Selim (2017) "The Unity of Grounding," *Mind* DOI:10.1093/mind/fzw069.
- Bernstein, Sara (2016) "Grounding Is Not Causation," *Philosophical Perspectives* 30 21–38.
- Bliss, Ricki (2014) "Viciousness and Circles of Ground," *Metaphilosophy* 45 (2) 245–256.
- Bliss, Ricki (2020) "Fundamentality," this volume.
- Bliss, Ricki, and Priest, Graham (eds.) (2018) *Reality and Its Structure: Essays in Fundamentality*, Oxford: Oxford University Press.
- Bliss, Ricki, and Trogdon, Kelly (2016) "Metaphysical Grounding," in Edward N. Zalta (ed.) *The Stanford Encyclopedia of Philosophy* (Winter 2016 Edition) <https://plato-stanford-edu.login.ezproxy.library.ualberta.ca/archives/win2016/entries/grounding/>.
- Bryant, Amanda (2020) "Physicalism," this volume.
- Cameron, Margaret (2014) "Is Ground Said-in-Many-Ways?" in Riin Sirkel and Tuomas E. Tahko (eds.) *Studia Philosophica Estonica*, Special Issue: "Aristotelian Metaphysics: Essence and Ground," 7 (2) 29–55.
- Cameron, Ross P. (2008) "Turtles All the Way Down: Regress, Priority and Fundamentality," *The Philosophical Quarterly* 58 (230) 1–14.
- Cameron, Ross P. (2014) "On the Lack of Direction in Rayo," *The Construction of Logical Space*, *Inquiry* 57 (4) 427–441.
- Cameron, Ross P. (2016) "Do We Need Grounding?" *Inquiry* 59 (4) 382–397.
- Chalmers, David, Manley, David, and Wasserman, Ryan (eds.) (2009) *Metametaphysics: New Essays on the Foundations of Ontology*, Oxford: Clarendon Press.
- Clark, Michael J., and Liggins, David (2012) "Recent Work on Grounding," *Analysis* 72 (4) 812–823.
- Correia, Fabrice (2005) *Existential Dependence and Cognate Notions*, München: Philosophia Verlag.
- Correia, Fabrice (2008) "Ontological Dependence," *Philosophy Compass* 3 (5) 1013–1032.
- Correia, Fabrice, and Schnieder, Benjamin (eds.) (2012) *Metaphysical Grounding: Understanding the Structure of Reality*, Cambridge: Cambridge University Press.
- Daly, Chris (2012) "Scepticism About Grounding," in Fabrice Correia and Benjamin Schnieder (eds.), *Metaphysical Grounding: Understanding the Structure of Reality*, Cambridge: Cambridge University Press 81–100.
- Dasgupta, Shamik (2014) "The Possibility of Physicalism," *The Journal of Philosophy* 111 (9) 557–592.
- Dasgupta, Shamik (2017) "Constitutive Explanation," *Philosophical Issues* 27 (*Metaphysics*) 74–97.
- deRosset, Louis (2013) "Grounding Explanations," *Philosopher's Imprint* 13 (7) 1–26.
- deRosset, Louis (2017) "Grounding the Unreal," *Philosophy and Phenomenological Research* 95 (3) 535–563.
- deRosset, Louis (ms.) "The Metaphysical Transparency of Truth," unpublished manuscript.
- Dixon, Scott (2020), "Infinite Descent," this volume.
- Fine, Kit (2001) "The Question of Realism," *Philosophers' Imprint* 1 (1) [www.philosophersimprint.org/001001/](http://www.philosophersimprint.org/001001/).
- Fine, Kit (2012) "Guide to Ground," in Fabrice Correia and Benjamin Schnieder (eds.) *Metaphysical Grounding: Understanding the Structure of Reality*, Cambridge: Cambridge University Press 37–80.
- Fine, Kit (2020) "The Essential Glossary of Ground," this volume.
- Hale, Bob, and Hoffman, Aviv (2010) *Modality: Metaphysics, Logic, and Epistemology*, Oxford: Oxford University Press.
- Heil, John (2016) "Truthmaking and Fundamentality," *Synthese*, published online 22 December 2016. DOI 10.1007/s11229-016-1292-9.
- Hofweber, Thomas (2009) "Ambitious, Yet Modest, Metaphysics," in David Chalmers, David Manley, and Ryan Wasserman (eds.) *Metametaphysics: New Essays on the Foundations of Ontology*, Oxford: Clarendon Press 260–289.

- Hofweber, Thomas (2016) *Ontology and the Ambitions of Metaphysics*, New York: Oxford University Press.
- Jago, Mark (ed.) (2016) *Reality Making*, Oxford: Oxford University Press.
- Jenkins, C. S. (2011) "Is Metaphysical Dependence Irreflexive?" *The Monist* 94 (2) 267–276.
- Koslicki, Kathrin (2012) "Varieties of Ontological Dependence," in Fabrice Correia and Benjamin Schnieder (eds.) *Metaphysical Grounding: Understanding the Structure of Reality*, Cambridge: Cambridge University Press 186–213.
- Koslicki, Kathrin (2013a) "Ontological Dependence: An Opinionated Survey," in Miguel Hoeltje, Benjamin Schnieder, and Alex Steinberg (eds.) *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, München: Philosophia Verlag 31–64.
- Koslicki, Kathrin (2013b) "Substance, Independence and Unity," in Edward Feser (ed.) *Aristotle on Method and Metaphysics*, Basingstoke: Palgrave Macmillan 169–195.
- Koslicki, Kathrin (2015a) "The Coarse-Grainedness of Grounding," *Oxford Studies in Metaphysics* 9 306–344.
- Koslicki, Kathrin (2015b) "In Defense of Substance," in Sandra Lapointe (ed.) *Grazer Philosophische Studien 91* (Festschrift for Peter Simons) 59–80.
- Koslicki, Kathrin (2016) "Where Grounding and Causation Part Ways: Comments on Jonathan Schaffer," *Philosophical Studies* 173 (1) 101–112.
- Koslicki, Kathrin (2018) *Form, Matter, Substance*, Oxford: Oxford University Press.
- Kovacs, David Mark (2017) "Grounding and the Argument from Explanatoriness," *Philosophical Studies* 174 (12) 2927–2952.
- Leary, Stephanie (2020) "Normativity," this volume.
- Lipman, Martin A. (2016) "Against Fundamentality-Based Metaphysics," *Nous* doi:10.1111/nous.12179.
- Litland, Jon Erling (2018) "In Defense of the (Moderate) Disunity of Grounding," *Thought: A Journal of Philosophy* 7 (2) 97–108.
- Lubrano, Michele (2018) "The Emergence of Ground: Some Limitative Results," *Synthese* <https://doi.org/10.1007/s11229-018-1739-2>.
- Maurin, Anna Sofia (2019) "Grounding and Metaphysical Explanation: It's Complicated," *Philosophical Studies* 176 (6): 1573–1594.
- Melia, Joseph (2005) "Truthmaking Without Truthmakers," in Helen Beebe and Julian Dodd (eds.) *Truthmakers: The Contemporary Debate*, New York: Oxford University Press 67–83.
- Mikkola, Mari (2015) "Doing Ontology and Doing Justice: What Feminist Philosophy Can Teach Us About Meta-Metaphysics," *Inquiry* 58 (7–8) 780–805.
- Mikkola, Mari (2017) "On the Apparent Antagonism Between Feminist and Mainstream Metaphysics," *Philosophical Studies* 174 (10) 2435–2448.
- Miller, Kristie, and Norton, James (2017) "Grounding: It's (Probably) All in the Head," *Philosophical Studies* 174 (12) 3059–3081.
- Ney, Alyssa (2020) "Mind," this volume.
- Passinsky, Asya (2020) "Social Entities," this volume.
- Raven, Michael J. (2016) "Fundamentality Without Foundations," *Philosophy and Phenomenological Research* 93 (3) 607–626.
- Raven, Michael J. (2017) "New Work for a Theory of Ground," *Inquiry* 60 (6) 625–655 DOI:10.1080/0020174X.2016.1251333.
- Rayo, Agustín (2013) *The Construction of Logical Space*, Oxford: Oxford University Press.
- Rayo, Agustín (2014) "Reply to Critics," *Inquiry* 57 (4) 498–534.
- Rettler, Bradley (2017) "Ground and 'Ground'," *Canadian Journal of Philosophy* <http://dx.doi.org/10.1080/00455091.2017.1282306>.
- Richardson, Kevin (2020) "Varieties," this volume.
- Rodriguez-Pereyra, Gonzalo (2015) "Grounding Is Not a Strict Order," *Journal of the American Philosophical Association* 1 (3) 517–534.
- Rooney, James Dominic (2019) "Grounding Relations Are Not Unified: Aquinas and Heil Versus Schaffer," *International Philosophical Quarterly* 59 (1) Issue 233 57–64.
- Rosen, Gideon (2010) "Metaphysical Dependence: Grounding and Reduction," in Bob Hale and Aviv Hoffman (eds.) *Modality: Metaphysics, Logic, and Epistemology*, Oxford: Oxford University Press 109–136.
- Rydgén, Henrik (2018) "Grounding and Ontological Dependence," *Synthese* <https://doi.org/10.1007/s11229-018-1818-4>.
- Schaffer, Jonathan (2003) "Is There a Fundamental Level?" *Noûs* 37 (3) 498–517.
- Schaffer, Jonathan (2007) "From Nihilism to Monism," *Australasian Journal of Philosophy* 85 (2) 175–191.

- Schaffer, Jonathan (2009) "On What Grounds What," in David Chalmers, David Manley, and Ryan Wasserman (eds.) *Metametaphysics: New Essays on the Foundations of Ontology*, Oxford: Clarendon Press 347–383.
- Schaffer, Jonathan (2010) "Monism: The Priority of the Whole," *The Philosophical Review* 119 (1) 31–76.
- Schaffer, Jonathan (2012) "Grounding, Transitivity, and Contrastivity," in Fabrice Correia and Benjamin Schnieder (eds.) *Metaphysical Grounding: Understanding the Structure of Reality*, Cambridge: Cambridge University Press 122–138.
- Schaffer, Jonathan (2016a) "Grounding in the Image of Causation," *Philosophical Studies* 173 (1) 49–100.
- Schaffer, Jonathan (2016b) "Ground Rules: Lessons from Wilson," in Kenneth Aizawa and Carl Gillett (eds.) *Scientific Composition and Metaphysical Ground*, London: Palgrave Macmillan 143–169.
- Schaffer, Jonathan (2017) "Social Construction as Grounding; or: Fundamentality for Feminists, a Reply to Barnes and Mikkola," *Philosophical Studies* 174 (10) 2449–2465.
- Schnieder, Benjamin (2006) "A Certain Kind of Trinity: Dependence, Substance, Explanation," *Philosophical Studies* 129 393–419.
- Schnieder, Benjamin (2020) "Dependence," this volume.
- Shaheen, Jonathan (2017) "The Causal Metaphor Account of Metaphysical Explanation," *Philosophical Studies* 174 (3) 553–578.
- Sider, Theodore (2011) *Writing the Book of the World*, Oxford: Oxford University Press.
- Sider, Theodore (2017) "Substantivity in Feminist Metaphysics," *Philosophical Studies* 174 (10) 2467–2478.
- Skiles, Alexander (2015) "Against Grounding Necessitarianism," *Erkenntnis* 80 (4) 717–751.
- Skiles, Alexander (2020) "Necessity," this volume.
- Solomyak, Olla (2020) "Realism," this volume.
- Thompson, Naomi (2016a) "Metaphysical Interdependence," in Mark Jago (ed.) *Reality Making*, Oxford: Oxford University Press 38–56.
- Thompson, Naomi (2016b) "Grounding and Metaphysical Explanation," *Proceedings of the Aristotelian Society* 116 (3) 395–402.
- Thompson, Naomi (2020) "Partial Order," this volume.
- Wang, Jennifer (2019) "Cause," this volume.
- Wilson, Alastair (2017) "Metaphysical Causation," *Nous* 1–29 DOI:10.1111/nous.12190.
- Wilson, Jessica (2014) "No Work for a Theory of Grounding," *Inquiry* 57 (5–6) 535–579.
- Wilson, Jessica (2016) "The Unity and Priority Arguments for Grounding," in Kenneth Aizawa and Carl Gillett (eds.) *Scientific Composition and Metaphysical Ground*, London: Palgrave Macmillan 171–204.